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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/937,877	09/29/1997	ANATOLIY V. TSYRGANOVICH	ZILG-183US0	2256

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11/29/2001

GERALD P PARSONS
MAJESTIC PARSONS SIEBERT AND HSUE
FOUR EMBARCADERO CENTER SUITE 1100
SAN FRANCISCO, CA 94114106

EXAMINER

SRIVASTAVA, VIVEK

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 11/29/2001

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Please find below and/or attached an Office communication concerning this application or proceeding.

10

Office Action Summary

Application No.
08/937,877

Applicant(s)
Anatoliy V. Tsyrzanovich

Examiner
Vivek Srivastava

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2611



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Sep 12, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4, 5, 7, 10, and 12-31 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4, 5, 7, 10, and 31 is/are allowed.
- 6) ☒ Claim(s) 12-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 U.S.C. § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 5 and 12 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claims 5 and 12, the applicants recite a “coefficient multiplier” and “coefficient multiplier circuitry”. The drawings and the specification fail to disclose coefficient multiplier and coefficient circuitry as claimed. The coefficient circuitry 36, 38, and 40 as depicted in fig 2 and support by page 4 line the Applicant’s specification depicts addition circuitry, a delay element and a amplifier. There is no reference to a “coefficient multiplier or “multiplying circuitry” in this figure or portion of the specification as well as in any other figure or portion of the specification. As a result, claims 5 and 12 are deemed non-enabling.

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Claim Rejections - 35 U.S.C. § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 13, 14 - 19, 25, 27 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi et al.

Considering claim 13, Kobayashi discloses the claimed providing a circuit, inputting an input signal into the circuit such that the circuit filters the input signal to provide a filtered component to the output of the circuit (fig 5 items 21 and 22), inputting an adjustment signal into the circuit so that the adjustment signal provides an unfiltered offset that is added to the output (fig 5 adjustments coefficients K2 and K1 will change the level of output Dvec, the signal $K2 \times Do(N+1)$ is added to the delayed or filtered signal $K1 \times DoN$), adding the adjustment signal to the input signal (figure 5, the signal $K2 \times Do(N+1)$ is added to the delayed or filtered signal $K1 \times DoN$).

Considering claim 14, Kobayashi inherently discloses wherein the adjustment signal keeps the output within a preset range (col 4 lines 23 - 68, adjustment signal must keep output in a preset range in order to maintain a correct output).

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Considering claims 15 and 19, Kobayashi discloses filtering of the input signal is a low-pass filtering (see frequency response in fig 6C from time $t_0 - t$).

Considering claim 16, Kobayashi discloses the claimed wherein the input is a phase signal (col 4 lines 24 - 59).

Considering claims 17 and 27, Kobayashi discloses wherein the input is a hue signal (col 1 lines 7 - 11).

Considering claims 18 and 28, Kobayashi inherently discloses constraining a phase signal within a finite preset range (in order to adjust correct the phase, the output phase must be inherently constrained within a preset range) , the constraining step including adding a correction signal to the phase signal (fig 5), filtering the phase signal without filtering the correction signal portion of the phase signal (fig 5, when no adjusting is required, resulting in K_2 and K_1 equal to one, the circuits acts like a filter), and adding the correction signal to the phase signal (figure 5, the signal $K_2 \times Do(N+1)$ is added to the delayed or filtered signal $K_1 \times DoN$).

Considering claim 25, Kobayashi discloses wherein the constraining step is such that the phase signal is processed so as to use a differential input (see fig 5, differential phase input $Do(N+1)$ is input to delay circuit).

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Claim Rejections - 35 U.S.C. § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 20 - 24, 26, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al in view of the Video Demystified handbook (by Keith Jack).

Considering claim 20, Kobayashi inherently discloses constraining a phase signal within a preset range (in order to adjust correct the phase, the output phase must be inherently constrained within a preset range) , the constraining step including adding a correction signal to the phase signal (fig 5), filtering the phase signal without filtering the correction signal portion of the phase signal (fig 5, when no adjusting is required, resulting in K2 and K1 equal to one, the circuits acts like a filter), and adding the correction signal to the phase signal (figure 5, the signal $K2 \times Do(N+1)$ is added to the delayed or filtered signal $K1 \times DoN$).

Kobayashi fails to disclose wherein the correction signal is an integer multiple of 2π . Kobayashi discloses adjusting and converting the phase of a signal. The Video Demystified handbook teaches by adjusting the hue from 0 deg to 360 deg can compensate for transmission problems. Therefore, it would have been obvious to one having ordinary skill in the art at the

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time the invention was made to modify Kobayashi to include the claimed correction signal having an integer multiple of 2π to compensate for transmission problems.

Considering claim 21, Kobayashi inherently discloses constraining a phase signal within a preset range (in order to adjust correct the phase, the output phase must be inherently constrained within a preset range) , the constraining step including adding a correction signal to the phase signal (fig 5), filtering the phase signal without filtering the correction signal portion of the phase signal (fig 5, when no adjusting is required, resulting in K_2 and K_1 equal to one, the circuits acts like a filter), and adding the correction signal to the phase signal (figure 5, the signal $K_2 \times Do(N+1)$ is added to the delayed or filtered signal $K_1 \times DoN$).

Kobayashi fails to disclose the claimed preset range is zero to 2π . The Video Demystified handbook teaches by adjusting the hue from 0 deg to 360 deg can compensate for transmission problems. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kobayashi to include the claimed preset range of zero to 2π to compensate for transmission problems.

Considering claim 22, Kobayashi inherently discloses constraining a phase signal within a preset range (in order to adjust correct the phase, the output phase must be inherently constrained within a preset range) , the constraining step including adding a correction signal to the phase signal (fig 5), filtering the phase signal without filtering the correction signal portion of the phase signal (fig 5, when no adjusting is required, resulting in K_2 and K_1 equal to one, the circuits acts

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like a filter), and adding the correction signal to the phase signal (figure 5, the signal $K2 \times Do(N+1)$ is added to the delayed or filtered signal $K1 \times DoN$).

Kobayashi fails to disclose the claimed preset range is zero to 2π plus a guard band. The Video Demystified handbook teaches by adjusting the hue from 0 deg to 360 deg can compensate for transmission problems. The Examiner Takes Official Notice it would have been well known in the art to include guard bands to prevent interference from adjacent signals. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kobayashi to include the claimed preset range of zero to 2π to compensate for transmission problems and to prevent interference from adjacent signals.

Regarding claim 23, it would have been obvious to modify Kobayashi to include a guard band. It would have been obvious to select a guard band range above or below the range of zero to 2π since the hue adjustment range is from zero to 2π to prevent interference from adjacent signals. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kobayashi to include the claimed guard band range to prevent interference from adjacent signals.

Regarding claim 24, it would have been obvious to modify Kobayashi to include a guard band. It would have been obvious to select a guard band range $-\pi$ to zero and 2π to 3π since the hue adjustment range is from zero to 2π to prevent interference from adjacent signals. Therefore, it would have been obvious to one having ordinary skill in the art at the time the

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invention was made to modify Kobayashi to include the claimed guard band range to prevent interference from adjacent signals.

Considering claim 26, Kobayashi inherently discloses constraining a phase signal within a preset range (in order to adjust correct the phase, the output phase must be inherently constrained within a preset range) , the constraining step including adding a correction signal to the phase signal (fig 5), filtering the phase signal without filtering the correction signal portion of the phase signal (fig 5, when no adjusting is required, resulting in K_2 and K_1 equal to one, the circuits acts like a filter), and adding the correction signal to the phase signal (figure 5, the signal $K_2 \times Do(N+1)$ is added to the delayed or filtered signal $K_1 \times DoN$), wherein the constraining step is such that the phase signal is processed so as to use a differential input (differential input is met by delayed signal).

Kobayashi fails to disclose the claimed wherein the differential input is offset by an integer multiple of 2π as to reduce the absolute value of the differential input. The Video Demystified handbook teaches by adjusting the hue from 0 deg to 360 deg can compensate for transmission problems. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kobayashi to include the claimed differential input is offset by an integer multiple of 2π as to reduce the absolute value of the differential input to compensate for transmission problems.

Considering claim 29, Kobayashi discloses providing picture data including hue information encoded as phase having a first range (col 1 lines 5 - 11, col 4 lines 24 - 68, phase

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includes hue data encoded in a first phase range) and producing a filtered hue information signal with unfiltered offsets (fig 5, when no adjusting is required, K2 and K1 offsets are not filtered). Hue fails to disclose offsets of plus or minus 2π . The Video Demystified handbook teaches by adjusting the hue from 0 deg to 360 deg can compensate for transmission problems. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kobayashi to include the claimed correction signal having an integer multiple of plus or minus 2π to compensate for transmission problems.

Considering claim 30, Kobayashi discloses producing a filtered hue information signal (fig 5, signal K1 x DoN is a filtered hue info signal) and adding the unfiltered offsets to the hue information signal (figure 5, the signal K2 x Do(N+1) is added to the delayed or filtered signal K1 x DoN).

Allowable Subject Matter

7. The indicated allowability of claims 21 - 24 and 26 are withdrawn. Please see new grounds for rejection above.

8. Claims 4, 5, 7, 10, and 31 are allowed.

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9. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach a circuit comprising a digital filter, coefficient multiplier circuitry adapted to multiply the signal values by filter coefficients, and a summer connected to the coefficient multiplier circuitry to produce an output value wherein the summing circuitry is connected to the input lines of the signal values at different time indexes and to an adjustment input and the output of the summing circuitry is sent to a coefficient multiplying circuitry.

Response to Arguments

10. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Isono et al (4,197,556) - Hue correction circuit

Sanada et al (4,091,411) - Color hue control circuit

Nakagawa et al (4,644,389) - Digital television signal processing circuit

Ekstrand (3,688,021) - Tint control

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Yoshinaka et al (4,714,954) - Read start pulse generator for time base corrector

Kosaka et al (4,939,572) - Video signal processing apparatus

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

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or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308- 5399 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivek Srivastava whose telephone number is (703) 305 - 4038. The examiner can normally be reached on Monday - Thursday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andy Faile, can be reached at (703) 305 - 4380.

Any inquiry of a general nature or relating to the status of this application or proceeding

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should be directed to the group receptionist whose telephone number is (703) 305 - 3900.

VS

11/11/01

A handwritten signature in black ink, appearing to read 'Vivek Srivastava', written over a horizontal line.

**VIVEK SRIVASTAVA
PATENT EXAMINER**